

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. An interface device for interfacing a user device to an  
5 asynchronous transfer mode (ATM) network, said interface device comprising:

a user input/output unit for receiving and sending user communication signals to and from the user device;

10 an ATM network input/output unit for receiving and sending network signals to and from the ATM network;

a microprocessor for converting said user signals to network signals and converting network signals to user signals; and

15 wherein the interface device is powered by a power source which is not dependent on the user device or the ATM network.

2. The interface device as defined in claim 1 wherein the user device is selected from a group comprising analog telephones and digital telephones; and

20 wherein the interface device further comprises self-configuring units for configuring the interface device to detect the type of user device connected to the interface device and send and receive user signals configured for the type of user device.

25

3. The interface device as defined in claim 1 wherein the user device comprises a type of telephone selected from the group of telephones comprising analog telephones and digital telephones; and

30 wherein the interface device comprises a self-configuring unit for detecting the type of telephone connected to the interface device and configuring the user input/output unit to

send and receive user signals to and from the type of telephone in a format corresponding to the type of telephone.

4. The interface device as claimed in claim 3 wherein the  
5 user device further comprises a device selected from the group comprising digital video cameras, microphones, headsets and personal computers.

10 5. The interface device as defined in claim 1 wherein the power source can be an electrical connection to an electrical main outlet or a battery power source.

15 6. The interface device as defined in claim 1 further comprising:

20 a natural speech processor located between the user input/output unit and the microprocessor for selectively converting communication signals in natural language from a user device connected to the user input/output unit into computer recognizable language and transferring the computer recognizable language to the microprocessor and to and from the ATM network.

25 7. The interface device as defined in claim 6 wherein the natural speech processor selectively converts communication signals in computer recognizable language to natural language, and, transfers the natural language communication signal to the user device connected to the user input/output unit.

30 8. The interface device as defined in claim 1 wherein the interface device also comprises a tri-state bus.

9. The interface device as defined in claim 1 further

comprising:

an internal bus for connecting the microprocessor to the user input/output unit and the ATM network input/output; and wherein the microprocessor monitors data transactions on  
5 the network connection for transactions which are unusual.

10. The device as defined in claim 9 wherein the microprocessor takes an action when a transaction that is unusual is detected, said action selected from the group  
10 consisting of sending a signal to an administrator of the network, and, disconnecting a port to which the unusual transaction is directed.

15. 11. An interface device for interfacing a user device to a network, said interface device comprising:

a user input/output unit for receiving and sending user communication signals to and from the user device;

network input/output unit for receiving and sending network signals to and from the network;

20 a microprocessor for converting said user signals to network signals and converting network signals to user signals; and

wherein the interface device is powered by a power source which is not dependent on the user device or the network.  
25

12. The interface device as defined in claim 11 wherein the user device is selected from a group comprising analog telephones and digital telephones; and

wherein the interface device further comprises self-  
30 configuring units for configuring the interface device to detect the type of user device connected to the interface device and send and receive user signals configured for the

type of user device.

13. The interface device as defined in claim 11 wherein the user device comprises a type of telephone selected from the 5 group of telephones comprising analog telephones and digital telephones; and

wherein the interface device comprises a self-configuring unit for detecting the type of telephone connected to the interface device and configuring the user input/output unit to 10 send and receive user signals to and from the type of telephone in a format corresponding to the type of telephone.

14. The interface device as claimed in claim 13 wherein the user device further comprises a device selected from the group 15 comprising digital video cameras, microphones, headsets and personal computers.

15. The interface device as defined in claim 11 wherein the power source can be an electrical connection to an electrical 20 main outlet or a battery power source.

16. The interface device as defined in claim 11 further comprising:

a natural speech processor located between the user 25 input/output unit and the microprocessor for selectively converting communication signals in natural language from a user device connected to the user input/output unit into computer recognizable language and transferring the computer recognizable language to the microprocessor and to and from the 30 network.

17. The interface device as defined in claim 16 wherein the

natural speech processor selectively converts communication signals in computer recognizable language to natural language, and, transfers the natural language communication signal to the user device connected to the user input/output unit.

5

18. The interface device as defined in claim 11 wherein the interface device also comprises a tri-state bus.

10 19. The interface device as defined in claim 11 further comprising:

an internal bus for connecting the microprocessor to the user input/output unit and the network input/output; and

wherein the microprocessor monitors data transactions on the network connection for transactions which are unusual.

15

20 20. The device as defined in claim 19 wherein the microprocessor takes an action when a transaction that is unusual is detected, said action selected from the group consisting of sending a signal to an administrator of the network, disconnecting a port to which the unusual transaction is directed.